Docket No.: 10021014-1
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Lance A. Tatman et al.

Application No.: 10/618,250 Confirmation No.: 4605

Filed: July 11, 2003 Art Unit: 2155

For: SYSTEMS AND METHODS FOR PHYSICAL LOCATION SELF-AWARENESS IN NETWORK CONNECTED DEVICES Examiner: M. Y. Won

APPEAL BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

As required under 37 C.F.R. § 41.37(a), this brief is filed within two months of the Notice of Appeal filed in this case on November 9, 2007, and is in furtherance of said Notice of Appeal.

The fees required under 37 C.F.R. § 41.20(b)(2) are being paid online using deposit account.

This brief contains items under the following headings as required by 37 C.F.R. § 41.37 and M.P.E.P. § 1206:

I. Real Party In Interest
II Related Appeals and Interferences
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V. Summary of Claimed Subject Matter
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I. REAL PARTY IN INTEREST

The real party in interest for this appeal is:

Agilent Technologies, Inc.

II. RELATED APPEALS, INTERFERENCES, AND JUDICIAL PROCEEDINGS

There are no other appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

A. Total Number of Claims in Application

There are 51 claims pending in application.

B. Current Status of Claims

1. Claims canceled:
2. Claims withdrawn from consideration but not canceled:
3. Claims pending: 1-51
4. Claims allowed:
5. Claims rejected: 1-51

C. Claims On Appeal

The claims on appeal are claims 1-51

IV. STATUS OF AMENDMENTS

A Final Office Action rejecting the claims of the present application was mailed August 9, 2007. In response, Applicant did not file an Amendment After Final Rejection, but instead filed a Notice of Appeal, which this brief supports. Accordingly, the claims on appeal are those as rejected in the Final Office Action of August 9, 2007. A complete listing of the claims is provided in the Claims Appendix hereto.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The following provides a concise explanation of the subject matter defined in each of the separately argued claims involved in the appeal, referring to the specification by page and line number and to the drawings by reference characters, as required by 37 C.F.R. § 41.37(c)(1)(v). Each element of the claims is identified by a corresponding reference to the specification and drawings where applicable. It should be noted that the citation to passages in the specification and drawings for each claim element does not imply that the limitations from the specification and drawings should be read into the corresponding claim element.

According to one claimed embodiment, such as that of independent claim 1, a system for physical location self awareness in network connected devices is provided. The system comprises a location server (e.g., location server 230 of Fig. 2, and location servers 321-323 of Fig. 3) acquiring locations of said devices (e.g., device 203 of Fig. 2 and 311 of Fig. 3) from a real-time location system (e.g., RTLS 220 of Fig. 2, and RTLS 306-308 of Fig. 3), *see* paragraphs 0025-0032 of the specification. The system further comprises an agent (e.g., agent 225 of Fig. 2, and agent 325 of Fig. 3) operable to run on each of said devices, said agent querying (e.g., operational block 102 of Fig. 1) said location server for a location of said device and storing (e.g., operational block 104 of Fig. 1) location information for said device on said device, *see* paragraphs 0025-0032 of the specification; and wherein when said location server is unable to satisfy said query for said location of said device, said location server is operable to query a hierarchical server (e.g., hierarchical server 350 of Fig. 3) that is operable to query other location servers for the location of said device, *see* paragraphs 0029-0031 of the specification. *See also*, paragraphs 0006-0014 of the specification.

In certain embodiments, such as that of dependent claim 2, the location server maintains said locations of said devices in a database, *see* paragraphs 0029-0034 of the specification.

In certain embodiments, such as that of dependent claim 4, the location server acquires said location from said real-time location system upon said agent querying said location server for a location of said device, *see* paragraphs 0029-0030 of the specification.

In certain embodiments, such as that of dependent claim 14, the location server is an extension of said real-time location system, *see* paragraph 0008 of the specification.

In certain embodiments, such as that of dependent claim 15, the location server comprises a duplicate of said central database, *see* paragraph 0021 of the specification.

In certain embodiments, such as that of dependent claim 22, the system further comprises a plurality of real-time location systems, *see* RTLS 306-308 of Fig. 3.

In certain embodiments, such as that of dependent claim 23, the system further comprises a location server associated with each of said real-time location systems and said hierarchical server for searching for a location of a device starting from a last known location server outward to a next closest location server, *see* the exemplary system of Fig. 3 and paragraphs 0029-0034 of the specification.

According to another claimed embodiment, such as that of independent claim 24, a method for providing location self awareness in a network connected device is provided. The method comprises establishing a location server (e.g., location server 230 of Fig. 2, and location servers 321-323 of Fig. 3) for acquiring a location of said device (e.g., device 203 of Fig. 2 and 311 of Fig. 3) from a real-time location system(e.g., RTLS 220 of Fig. 2, and RTLS 306-308 of Fig. 3), *see* paragraphs 0025-0032 of the specification. The method further comprises executing an agent (e.g., agent 225 of Fig. 2, and agent 325 of Fig. 3) on said device. The method further comprises instructing, by said agent, said device to send a query (e.g., operational block 102 of Fig. 1) to said location server for location information for said device; wherein when said location server is unable to provide said location information for said device in response to said

query, then said location server querying a hierarchical server (e.g., hierarchical server 350 of Fig. 3) to obtain said location information from another location server, *see* paragraphs 0029-0034 of the specification. The method further comprises storing (e.g., operational block 104 of Fig. 1) said location information for said device on said device. *See also*, paragraphs 0006-0014 of the specification.

According to another claimed embodiment, such as that of independent claim 39, a system for physical location self awareness in a network connected device (e.g., device 203 of Fig. 2 and 311 of Fig. 3) across a domain of a plurality of related real-time location systems (e.g., RTLS 306-308 of Fig. 3) is provided. The system comprises a plurality of location servers location servers (e.g., location servers 321-323 of Fig. 3), each location server acquiring locations of devices under a real-time location system associated with said location server. The system further comprises an agent (e.g., agent 325 of Fig. 3) operable to run on each of said devices, said agent on a device querying (e.g., operational block 102 of Fig. 1) a nearest location server associated with said device for a location of said device and storing (e.g., operational block 104 of Fig. 1) location information for said device on said device. The system further comprises a hierarchical server (e.g., hierarchical server 350 of Fig. 3) adapted to querying each of said location servers for a location of said devices if said nearest location server fails to return a location of said device, *see* paragraphs 0029-0034 of the specification. *See also*, paragraphs 0006-0014 of the specification.

In certain embodiments, such as that of dependent claim 40, the hierarchical server queries a next closest location sever when said nearest location server fails to return a location of said device, *see* paragraphs 0029-0034 of the specification.

In certain embodiments, such as that of dependent claim 41, the hierarchical server queries a further next closest location sever when said next closest location server fails to return a location of said device, *see* paragraphs 0029-0034 of the specification.

According to another claimed embodiment, such as that of independent claim 45, a method for physical location self awareness in network connected devices (e.g., device 203 of

Fig. 2 and 311 of Fig. 3) across a domain of a plurality of related real-time location systems (e.g., RTLS 306-308 of Fig. 3) is provided. The method comprises establishing a plurality of location servers, each of said location servers (e.g., location servers 321-323 of Fig. 3) acquiring locations of said devices under a real-time location system associated with said location server. The method further comprises executing an agent (e.g., agent 325 of Fig. 3) on each of said devices, and instructing, by said agent, that an associated device send a query (e.g., operational block 102 of Fig. 1) for location information of said device to a nearest location server associated with said device. The method further comprises querying, by a hierarchical server (e.g., hierarchical server 350 of Fig. 3), upon failure of said nearest location server to return a location of said device, each of said location servers for a location of said device. The method further comprises storing (e.g., operational block 104 of Fig. 1), by said agent, returned location information for said device on said device, *see* paragraphs 0029-0034 of the specification. *See also*, paragraphs 0006-0014 of the specification.

In certain embodiments, such as that of dependent claim 46, the method further comprises querying, by said hierarchical server, a next closest location sever when said nearest location server fails to return a location of said device, *see* paragraphs 0029-0034 of the specification.

In certain embodiments, such as that of dependent claim 47, the method further comprises querying, by said hierarchical server, a further next closest location sever when said next closest location server fails to return a location of said device, *see* paragraphs 0029-0034 of the specification.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Claims 1-8, 11, 12, 14-17, 22-24, 27-34, and 39-51 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,415,220 to Kovacs (hereinafter "*Kovacs*").

B. Claims 9, 10, 25, and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kovacs* in view of U.S. Patent Application Publication No. 2003/0005316 to Girard (hereinafter "*Girard*").

C. Claim 13 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kovacs* in view of U.S. Patent No. 6,456,239 to Werb et al. (hereinafter "*Werb*").

D. Claims 18-21 and 35-38 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kovacs* in view of U.S. Patent No. 6,008,805 to Land et al. (hereinafter "*Land*").

VII. ARGUMENT

Appellant respectfully traverses the outstanding rejections of the pending claims, and requests that the Board reverse the outstanding rejections in light of the remarks contained herein. The claims do not stand or fall together. Instead, Appellant presents separate arguments for various independent and dependent claims. Each of these arguments is separately argued below and presented with separate headings and sub-heading as required by 37 C.F.R. § 41.37(c)(1)(vii).

A. Rejections Under 35 U.S.C. §102 over *Kovacs*

Claims 1-8, 11, 12, 14-17, 22-24, 27-34, and 39-51 are rejected under 35 U.S.C. § 102(b) as being anticipated by *Kovacs*. Appellant traverses the rejection for the reasons stated below.

To anticipate a claim under 35 U.S.C. § 102, a single reference must teach each and every element of the claim. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). In fact, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989). Furthermore, for a reference to be anticipatory, "[its] elements must be arranged as required by the claim." *In re Bond*, 910 F.2d 831 (Fed. Cir. 1990), *cited in* M.P.E.P. § 2131. As discussed below, *Kovacs* fails to teach all elements of claims 1-8, 11, 12, 14-17, 22-24, 27-34, and 39-51, and therefore fails to anticipate the claims under 35 U.S.C. §102.

Independent Claim 1 and Dependent Claims 3, 5-8, 11, 12, and 16-17

Independent claim 1 recites:

> A system for physical location self awareness in network connected devices, said system comprising:
> a location server acquiring locations of said devices from a real-time location system;
> an agent operable to run on each of said devices, said agent querying said location server for a location of said device and storing location information for said device on said device; and
> wherein when said location server is unable to satisfy said query for said location of said device, said location server is operable to query a hierarchical server that is operable to query other location servers for the location of said device. (Emphasis added).

As discussed further hereafter, *Kovacs* fails to teach at least the above-emphasized elements of claim 1.

In general, *Kovacs* is directed to "a method for the determination of the current position of a mobile device", col. 2, lines 5-6. *Kovacs* proposes a system in which stationary nodes (e.g., node 3 in Figs. 2 and 6 of *Kovacs*) are provided that have information indicating the corresponding position of such stationary nodes, *see e.g.,* col. 2, lines 6-8 and col. 4, lines 33-36. A geolocation server (e.g., server 5 in Figs. 3-4 of *Kovacs*) may be provided that provides permanent (persistent) storage of stationary device(s), wherein such information may be communicated (e.g., broadcast) to mobile devices, *see e.g.,* col. 4, lines 36-43. The positional information of the stationary nodes is communicated to a mobile device (e.g., mobile device 1 in Figs. 2 and 6 of *Kovacs*), and the mobile device uses the received positional information of the stationary nodes to determine the mobile device's current position, *see e.g.,* col. 2, lines 8-12, 17-22, and 26-32, col. 3, lines 5-20 and 49-53. Thus, rather than communicating positional information of the mobile device to the mobile device, *Kovacs* proposes that the position of stationary devices be communicated to the mobile device, and the mobile device then attempts to determine its own position based on the received positional information of the stationary devices.

The Final Office Action contends on page 3 thereof that the stationary node of *Kovacs* provides the recited location server of claim 1 (citing to Fig. 2 and col. 2, lines 6-8 of *Kovacs*), and further contends on page 3 thereof that program code loaded into memory of a mobile device of *Kovacs* provides the recited agent operable to run on each of said devices of claim 1 (citing to col. 2, lines 29-32 and 50-52, and col. 3, lines 3-4). Thus, the Final Office Action contends that the mobile device 1 in Figs. 2 and 6 of *Kovacs* provides the recited network connected devices on which the recited agent runs, and the Final Office Action contends that the stationary node 3 of Figs. 2 and 6 of *Kovacs* provides the recited location server of claim 1. Appellant respectfully disagrees.

Claim 1 recites that the location server acquires locations "of said devices" from a real-time location system. *Kovacs'* stationary node 3 does not acquire locations of the mobile device 1 from a real-time location system. Rather, the stationary node 3 stores to persistent storage 6 the location of such stationary node 3. *Kovacs* provides no teaching whatsoever of stationary node 3 acquiring position information of the mobile device 1. Further, it is unclear what teaching in *Kovacs* the Examiner believes to provide a real-time location system from which the stationary node 3 is asserted to acquires the location of mobile device 1.

In addition, claim 1 recites that the agent on each of said devices queries the location server "for a location of said device". *Kovacs* does not teach that the mobile device 1 queries the stationary node 3 for the location of the mobile device 1. Instead, mobile device 1 may query the stationary node 3 for the location of the stationary node 3, and mobile device 1 then uses the received information about the position of stationary node 3 to attempt to determine its own location.

Further, claim 1 recites that the location server is "operable to query a hierarchical server that is operable to query other location servers for the location of said device" (emphasis added). *Kovacs* does not teach that its stationary node 3 is operable to query any such hierarchical server that is operable to query other stationary nodes 3 for the location of a mobile device 1. No such hierarchical server that is operable to query stationary nodes 3 for the location of a mobile device 1 is taught by *Kovacs*.

In view of the above, *Kovacs* fails to teach all elements of independent claim 1. Therefore, the rejection of claim 1 under 35 U.S.C. §102 should be overturned. Further, the rejection of claims 3, 5-8, 11, 12, and 16-17 should likewise be overturned based at least on their dependency from independent claim 1, for the above reasons.

Dependent Claim 2

Dependent claim 2 depends from claim 1 and thus inherits all elements of claim 1. The rejection of claim 2 should thus be overturned for at least the reasons discussed above with claim 1.

In addition, claim 2 further recites "wherein said location server maintains said locations of said devices in a database" (emphasis added). The Final Office Action relies on the stationary node 3 of *Kovacs* as providing the recited "location server", and the Final Office Action relies on the mobile device 1 of *Kovacs* as providing the recited "said devices". However, *Kovacs* does not teach that the stationary node 3 maintains locations of the mobile device 1. As discussed above with claim 1, the stationary node 3 of *Kovacs* maintains its own location information (i.e., location of the stationary node 3 itself), but does not maintain a location of mobile device 1.

Accordingly, *Kovacs* fails to teach this further element of claim 2, and thus the rejection of claim 2 should be overturned for this additional reason.

Dependent Claim 4

Dependent claim 4 depends from claim 1 and thus inherits all elements of claim 1. The rejection of claim 4 should thus be overturned for at least the reasons discussed above with claim 1.

In addition, claim 4 further recites "wherein said location server acquires said location from said real-time location system upon said agent querying said location server for a location of said device." *Kovacs* does not teach that its stationary node 3 acquires a location of a mobile device 1 from a real-time location system. Accordingly, *Kovacs* fails to teach this further

element of claim 4, and thus the rejection of claim 4 should be overturned for this additional reason.

Dependent Claim 14

Dependent claim 14 depends indirectly from claim 1 and thus inherits all elements of claim 1. The rejection of claim 14 should thus be overturned for at least the reasons discussed above with claim 1.

Further, dependent claim 14 depends directly from dependent claim 13, which recites elements that the Final Office Action concedes (on page 11 thereof) are not taught by *Kovacs*. Claim 14 inherits such elements from claim 13, and thus *Kovacs* cannot anticipate claim 14. Accordingly, the rejection of claim 14 maintained in the Final Office Action is clearly improper and should be overturned.

Dependent Claim 15

Dependent claim 15 depends indirectly from claim 1 and thus inherits all elements of claim 1. The rejection of claim 15 should thus be overturned for at least the reasons discussed above with claim 1.

Further, dependent claim 15 depends directly from dependent claim 13, which recites elements that the Final Office Action concedes (on page 11 thereof) are not taught by *Kovacs*. Claim 15 inherits such elements from claim 13, and thus *Kovacs* cannot anticipate claim 15. Accordingly, the rejection of claim 15 maintained in the Final Office Action is clearly improper and should be overturned.

Dependent Claim 22

Dependent claim 22 depends from claim 1 and thus inherits all elements of claim 1. The rejection of claim 22 should thus be overturned for at least the reasons discussed above with claim 1.

In addition, claim 22 further recites "a plurality of real-time location systems." *Kovacs* does not appear to teach a plurality of real-time location systems, and thus the rejection of claim 22 should be overturned for this additional reason.

Dependent Claim 23

Dependent claim 23 depends from claim 22, and thus inherits all elements of claims 1 and 22. The rejection of claim 23 should thus be overturned for at least the reasons discussed above with claims 1 and 22.

In addition, claim 23 further recites "a location server associated with each of said real-time location systems and said hierarchical server for searching for a location of a device starting from a last known location server outward to a next closest location server." *Kovacs* does not appear to teach a plurality of real-time location systems, nor does *Kovacs* appear to teach a stationary node 3 (which the Final Office Action asserts to be a location server) as being associated with each of such plurality of real-time location systems. Moreover, *Kovacs* does not appear to teach the recited hierarchical server for searching for a location of a mobile device 1 (which the Final Office Action asserts to be the recited "device"). Thus, the rejection of claim 23 should be overturned for this additional reason.

Independent Claim 24 and Dependent Claims 27-34

Independent claim 24 recites:

> A method for providing location self awareness in a network connected device, said method comprising:
> establishing a location server for acquiring a location of said device from a real-time location system;
> executing an agent on said device;
> instructing, by said agent, said device to send a query to said location server for location information for said device;
> wherein when said location server is unable to provide said location information for said device in response to said query, then said location server querying a hierarchical server to obtain said location information from another location server; and
> storing said location information for said device on said device.
> (Emphasis added).

Kovacs fails to teach at least the above-emphasized elements of claim 24.

The Final Office Action contends on pages 3-4 thereof that the stationary node of *Kovacs* provides the recited location server of claim 24 (citing to Fig. 2 and col. 2, lines 6-8 of *Kovacs*), and further contends on page 4 thereof that program code loaded into memory of a mobile device of *Kovacs* provides the recited agent that instructs the device to send a query to the location server for location information for said device of claim 24 (citing to col. 2, lines 29-32 and 50-52). Thus, the Final Office Action contends that the mobile device 1 in Figs. 2 and 6 of *Kovacs* provides the recited network connected devices on which the recited agent executes, and the Final Office Action contends that the stationary node 3 of Figs. 2 and 6 of *Kovacs* provides the recited location server of claim 24. Appellant respectfully disagrees.

Claim 24 recites that the location server acquires location "of said device" from a real-time location system. *Kovacs'* stationary node 3 does not acquire location of the mobile device 1 from a real-time location system. Rather, the stationary node 3 stores to persistent storage 6 the location of such stationary node 3. *Kovacs* provides no teaching whatsoever of stationary node 3 acquiring location of the mobile device 1. Additionally, it is unclear what teaching, if any, in

Kovacs the Examiner contends to provide a real-time location system from which the stationary node 3 acquires a location of mobile device 1.

In addition, claim 24 recites that the agent executing on the device instructs the device to send a query to the location server "for location information for said device". *Kovacs* does not teach that the mobile device 1 queries the stationary node 3 for the location of the mobile device 1. Instead, mobile device 1 may query the stationary node 3 for the location of the stationary node 3, and mobile device 1 then uses the received information about the position of stationary node 3 to attempt to determine its own location.

Further, claim 24 recites that the location server "querying a hierarchical server to obtain said location information from another location server" (emphasis added). The said location information is "location information for said device" on which the agent is executing. *Kovacs* does not teach that its stationary node 3 queries any such hierarchical server to obtain such location information for the mobile device 1 from another stationary node 3.

In view of the above, *Kovacs* fails to teach all elements of independent claim 24. Therefore, the rejection of claim 24 under 35 U.S.C. §102 should be overturned. Further, the rejection of claims 27-34 should likewise be overturned based at least on their dependency from independent claim 24, for the above reasons.

Independent Claim 39 and Dependent Claims 42-45

Independent claim 39 recites:

> A system for physical location self awareness in a network connected device across a domain of a plurality of related real-time location systems, said system comprising:
> a plurality of location servers, each location server acquiring locations of devices under a real-time location system associated with said location server;
> an agent operable to run on each of said devices, said agent on a device querying a nearest location server associated with said device for a location of said device and storing location information for said device on said device; and
> a hierarchical server adapted to querying each of said location servers for a location of said devices if said nearest location server fails to return a location of said device. (Emphasis added).

Kovacs fails to teach at least the above-emphasized elements of claim 39.

The Final Office Action contends on pages 4-5 thereof that the stationary node of *Kovacs* provides the recited plurality of location servers of claim 39 (citing to col. 3, lines 7-10 of *Kovacs*), and further contends on page 5 thereof that program code loaded into memory of a mobile device of *Kovacs* provides the recited agent on the devices that queries a nearest location server for a location of said device of claim 39 (citing to col. 2, lines 29-32 and 50-52, and col. 3, lines 3-4 and 47-49 of *Kovacs*). Thus, the Final Office Action contends that the mobile device 1 in Figs. 2 and 6 of *Kovacs* provides the recited network connected devices on which the recited agent runs, and the Final Office Action contends that the stationary node 3 of Figs. 2 and 6 of *Kovacs* provides the recited plurality of location servers of claim 39. Appellant respectfully disagrees.

Claim 39 recites that the plurality of location servers each "acquiring locations of devices under a real-time location system associated with said location server" (emphasis added). *Kovacs'* stationary node 3 does not acquire location of the mobile device 1 from a real-time location system. Rather, the stationary node 3 stores to persistent storage 6 the location of such stationary node 3. *Kovacs* provides no teaching whatsoever of stationary node 3 acquiring location of the mobile device 1.

In addition, claim 39 recites that the agent on the device queries "a nearest location server associated with said device for a location of said device" (emphasis added). *Kovacs* does not teach that the mobile device 1 queries the stationary node 3 for the location of the mobile device 1. Instead, mobile device 1 may query the stationary node 3 for the location of the stationary node 3, and mobile device 1 then uses the received information about the position of stationary node 3 to attempt to determine its own location.

Further, claim 39 recites "a hierarchical server adapted to querying each of said location servers for a location of said devices if said nearest location server fails to return a location of said device" (emphasis added). *Kovacs* does not teach any such hierarchical server that queries each of a plurality of stationary nodes 3 for a location of the mobile device 1.

In view of the above, *Kovacs* fails to teach all elements of independent claim 39. Therefore, the rejection of claim 39 under 35 U.S.C. §102 should be overturned. Further, the rejection of claims 42-44 should likewise be overturned based at least on their dependency from independent claim 39, for the above reasons.

Dependent Claims 40-41

Dependent claim 40 depends from claim 39, and thus inherits all elements of claim 39. The rejection of claim 40 should thus be overturned for at least the reasons discussed above with claim 39.

In addition, claim 40 further recites "wherein said hierarchical server queries a next closest location server when said nearest location server fails to return a location of said device." *Kovacs* fails to teach such a hierarchical server that queries the next closest stationary node 3 when a nearest stationary node 3 fails to return a location of mobile device 1. As discussed above with claim 1, the stationary nodes 3 do not return a location of mobile device 1, but instead merely return their own locations. Thus, the rejection of claim 40 should be overturned for this additional reason.

Dependent claim 41 depends from claim 40, and thus inherits all elements of claims 39 and 40. The rejection of claim 41 should thus be overturned for at least the reasons discussed above with claims 39 and 40.

Independent Claim 45 and Dependent Claims 49-51

Independent claim 45 recites:

> A method for physical location self awareness in network connected devices across a domain of a plurality of related real-time location systems, said method comprising:
> establishing a plurality of location servers, each of said location servers acquiring locations of said devices under a real-time location system associated with said location server;
> executing an agent on each of said devices;
> instructing, by said agent, that an associated device send a query for location information of said device to a nearest location server associated with said device;
> querying, by a hierarchical server, upon failure of said nearest location server to return a location of said device, each of said location servers for a location of said device; and
> storing, by said agent, returned location information for said device on said device. (Emphasis added).

Kovacs fails to teach at least the above-emphasized elements of claim 45.

The Final Office Action contends on pages 5-6 thereof that the stationary node of *Kovacs* provides the recited plurality of location servers of claim 45 (citing to col. 3, lines 7-10 of *Kovacs*), and further contends on page 6 thereof that program code loaded into memory of a mobile device of *Kovacs* provides the recited agent on the devices that instructs the device to send a query for location information of said device of claim 45 (citing to col. 2, lines 29-32 and 50-52, and col. 3, lines 47-49 of *Kovacs*). Thus, the Final Office Action contends that the mobile device 1 in Figs. 2 and 6 of *Kovacs* provides the recited network connected devices on which the recited agent executes, and the Final Office Action contends that the stationary node 3 of Figs. 2 and 6 of *Kovacs* provides the recited plurality of location servers of claim 45. Appellant respectfully disagrees.

Claim 45 recites that the plurality of location servers each "acquiring locations of said devices under a real-time location system associated with said location server" (emphasis added). *Kovacs'* stationary node 3 does not acquire location of the mobile device 1 from a real-time location system. Rather, the stationary node 3 stores to persistent storage 6 the location of such stationary node 3. *Kovacs* provides no teaching whatsoever of stationary node 3 acquiring location of the mobile device 1.

In addition, claim 45 recites that the agent executing on the device instructs the device to "send a query for location information of said device to a nearest location server associated with said device queries" (emphasis added). *Kovacs* does not teach that the mobile device 1 queries the stationary node 3 for the location of the mobile device 1. Instead, mobile device 1 may query the stationary node 3 for the location of the stationary node 3, and mobile device 1 then uses the received information about the position of stationary node 3 to attempt to determine its own location.

Further, claim 45 recites "querying, by a hierarchical server, upon failure of said nearest location server to return a location of said device, each of said location servers for a location of said device" (emphasis added). *Kovacs* does not teach any such hierarchical server that queries each of a plurality of stationary nodes 3 for a location of the mobile device 1.

In view of the above, *Kovacs* fails to teach all elements of independent claim 45. Therefore, the rejection of claim 45 under 35 U.S.C. §102 should be overturned. Further, the rejection of claims 49-51 should likewise be overturned based at least on their dependency from independent claim 45, for the above reasons.

Dependent Claims 46-47

Dependent claim 46 depends from claim 45, and thus inherits all elements of claim 45. The rejection of claim 46 should thus be overturned for at least the reasons discussed above with claim 45.

In addition, claim 46 further recites "querying, by said hierarchical server, a next closest location server when said nearest location server fails to return a location of said device." *Kovacs* fails to teach such a hierarchical server that queries the next closest stationary node 3 when a nearest stationary node 3 fails to return a location of mobile device 1. As discussed above with claim 1, the stationary nodes 3 do not return a location of mobile device 1, but instead merely return their own locations. Thus, the rejection of claim 46 should be overturned for this additional reason.

Dependent claim 47 depends from claim 46, and thus inherits all elements of claims 45 and 46. The rejection of claim 47 should thus be overturned for at least the reasons discussed above with claims 45 and 46.

B. Rejections Under 35 U.S.C. §103 over *Kovacs* in view of *Girard*

Claims 9, 10, 25, and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kovacs* in view of *Girard*. Claims 9, 10, 25, and 26 each depend either directly or indirectly from one of independent claims 1 and 24, and thus inherit the elements of their respective independent claims. As discussed above, the rejection of independent claims 1 and 24 over *Kovacs* should be overturned. *Girard* is not relied upon by the Final Office Action as correcting the above-noted deficiencies of *Kovacs* with regard to independent claims 1 and 24, nor does *Girard* appear to do so. Thus, the rejection of claims 9, 10, 25, and 26 should be overturned based at least on their dependency from their respective independent claim 1 and 24, for the reasons discussed above.

C. Rejections Under 35 U.S.C. §103 over *Kovacs* in view of *Werb*

Claim 13 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kovacs* in view of *Werb*. Claims 13 depends from independent claim 1, and thus inherits the elements of claim 1. As discussed above, the rejection of independent claim 1 over *Kovacs* should be overturned. *Werb* is not relied upon by the Final Office Action as correcting the above-noted deficiencies of *Kovacs* with regard to independent claim 1, nor does *Werb* appear to do so. Thus, the rejection of claim 13 should be overturned based at least on its dependency from independent claim 1 for the reasons discussed above.

D. Rejections Under 35 U.S.C. §103 over *Kovacs* in view of *Land*

Claims 18-21 and 35-38 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kovacs* in view of *Land*. Claims 18-21 and 35-38 each depend either directly or indirectly from one of independent claims 1 and 24, and thus inherit the elements of their respective independent claims. As discussed above, the rejection of independent claims 1 and 24 over *Kovacs* should be overturned. *Land* is not relied upon by the Final Office Action as correcting the above-noted deficiencies of *Kovacs* with regard to independent claims 1 and 24, nor does *Land* appear to do so. Thus, the rejection of claims 18-21 and 35-38 should be overturned based at least on their dependency from their respective independent claim 1 and 24, for the reasons discussed above.

Conclusion

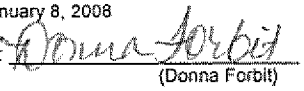
In view of the above, Appellant requests that the board overturn the outstanding rejections of claims 1-51. Attached hereto are a Claims Appendix, Evidence Appendix, and Related Proceedings Appendix. As noted in the attached Evidence Appendix, no evidence pursuant to §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the examiner is being submitted. Also, no related appeals are identified in Section II above, and thus as noted by the Related Proceedings Appendix, no decisions in any such related proceedings are provided.

Dated: January 8, 2008

Respectfully submitted,

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4).

Dated: January 8, 2008

Signature: 
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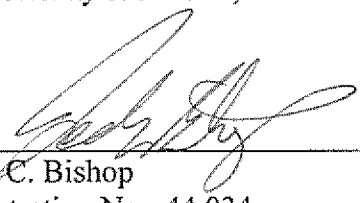
By 
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VIII. CLAIMS APPENDIX

Claims Involved in the Appeal of Application Serial No. 10/618,250

1. A system for physical location self awareness in network connected devices, said system comprising:

a location server acquiring locations of said devices from a real-time location system;

an agent operable to run on each of said devices, said agent querying said location server for a location of said device and storing location information for said device on said device; and

wherein when said location server is unable to satisfy said query for said location of said device, said location server is operable to query a hierarchical server that is operable to query other location servers for the location of said device.

2. The system of claim 1 wherein said location server maintains said locations of said devices in a database.

3. The system of claim 2 wherein said location server acquires said locations of said devices when said location server is established.

4. The system of claim 1 wherein said location server acquires said location from said real-time location system upon said agent querying said location server for a location of said device.

5. The system of claim 1 wherein said location server is an extension of said real-time location system.

6. The system of claim 1 wherein said agent is software executed by said device.

7. The system of claim 1 wherein said agent is a process incorporated into said device.

8. The system of claim 7 wherein said agent is incorporated into firmware of said device.

9. The system of claim 1 wherein said agent queries said location server on boot of said device.

10. The system of claim 1 wherein said agent periodically queries said location server.

11. The system of claim 1 wherein said agent stores said location of said device in memory of said device.

12. The system of claim 1 wherein said agent stores said location of said device in mass storage of said device.

13. The system of claim 1 further comprising said real-time location system comprising:

a tag associated with each device to be tracked;

a plurality of receivers, said receivers locating each of said tags; and

a central database of locations of said tagged devices.

14. The system of claim 13 wherein said location server is an extension of said real-time location system.

15. The system of claim 13 wherein said location server comprises a duplicate of said central database.

16. The system of claim 1 wherein said location server pushes location information updates to devices when location data on said location server changes.

17. The system of claim 1 wherein said location information stored on said device is accessible by a user networked to said device.

18. The system of claim 17 wherein said location information is accessible by said user via a shell.

19. The system of claim 17 wherein said location information is accessible by said user via a simple network management protocol.

20. The system of claim 19 wherein said location information is stored in a simple network management protocol management information base variable.

21. The system of claim 20 wherein said variable is system information for the device.

22. The system of claim 1 further comprising a plurality of real-time location systems.

23. The system of claim 22 further comprising a location server associated with each of said real-time location systems and said hierarchical server for searching for a location of a device starting from a last known location server outward to a next closest location server.

24. A method for providing location self awareness in a network connected device, said method comprising:

establishing a location server for acquiring a location of said device from a real-time location system;

executing an agent on said device;

instructing, by said agent, said device to send a query to said location server for location information for said device;

wherein when said location server is unable to provide said location information for said device in response to said query, then said location server querying a hierarchical server to obtain said location information from another location server; and

storing said location information for said device on said device.

25. The method of claim 24 wherein said executing occurs upon boot of said device.

26. The method of claim 24 wherein said instructing is repeated periodically.

27. The method of claim 24 wherein said location information is stored in memory of said device.

28. The method of claim 24 wherein said location information is stored in mass storage of said device.

29. The method of claim 24 wherein said location server acquires said device location from said real-time location system as a result of said query.

30. The method of claim 24 wherein said location server is established as an extension of said real-time location system.

31. The method of claim 24 wherein said establishing further comprises duplicating a central database of said real-time location system.

32. The method of claim 24 further comprising:

pushing, by said location server, location information updates to devices when location data on said location server changes.

33. The method of claim 32 wherein said location information updates are pushed only to devices for which location information has changed.

34. The method of claim 24 further comprising:

providing access to said stored location information via a network.

35. The method of claim 34 wherein said providing further comprises:

providing said access via a shell.

36. The method of claim 34 wherein said providing further comprises:

providing said access via a simple network management protocol.

37. The method of claim 24 wherein said storing comprises storing said location information as a simple network management protocol management information base variable.

38. The method of claim 37 wherein said variable is system information for said device.

39. A system for physical location self awareness in a network connected device across a domain of a plurality of related real-time location systems, said system comprising:

a plurality of location servers, each location server acquiring locations of devices under a real-time location system associated with said location server;

an agent operable to run on each of said devices, said agent on a device querying a nearest location server associated with said device for a location of said device and storing location information for said device on said device; and

a hierarchical server adapted to querying each of said location servers for a location of said devices if said nearest location server fails to return a location of said device.

40. The system of claim 39 wherein said hierarchical server queries a next closest location sever when said nearest location server fails to return a location of said device.

41. The system of claim 40 wherein said hierarchical server queries a further next closest location sever when said next closest location server fails to return a location of said device.

42. The system of claim 39 wherein a newly assigned location server pushes a location information update for a moved device.

43. The system of claim 42 wherein said location information update is pushed to a previous location server to which said moved device was assigned.

44. The system of claim 42 wherein said location information update is pushed to said moved device.

45. A method for physical location self awareness in network connected devices across a domain of a plurality of related real-time location systems, said method comprising:

establishing a plurality of location servers, each of said location servers acquiring locations of said devices under a real-time location system associated with said location server;

executing an agent on each of said devices;

instructing, by said agent, that an associated device send a query for location information of said device to a nearest location server associated with said device;

querying, by a hierarchical server, upon failure of said nearest location server to return a location of said device, each of said location servers for a location of said device; and

storing, by said agent, returned location information for said device on said device.

46. The method of claim 45 further comprising:

querying, by said hierarchical server, a next closest location sever when said nearest location server fails to return a location of said device.

47. The method of claim 46 further comprising:

querying, by said hierarchical server, a further next closest location sever when said next closest location server fails to return a location of said device.

48. The method of claim 45 further comprising:

pushing, by a newly assigned location server, a location information update for a moved device.

49. The method of claim 48 wherein said pushing is carried out in response to said device moving into said newly assigned location server's associated real-time locations system's area.

50. The method of claim 48 wherein said location information update is pushed to a previous location server to which said moved device was assigned.

51. The method of claim 48 wherein said location information update is pushed to said moved device.

IX. EVIDENCE APPENDIX

No evidence pursuant to §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the examiner is being submitted.

X. RELATED PROCEEDINGS APPENDIX

There are no other appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.